

ABSTRACT OF THE DISCLOSURE

A conflict tolerant message delay reducing consensus algorithm is presented for operating a distributed computing system. The devices of the distributed computing system can directly receive client requests, and can execute the requests and respond directly to the clients, saving message delays. If there is a conflict, the ultimately selected request can be the request submitted by the client with the highest client identifier. A device can change its vote, and execute a different request, if it is made by a client having a more dominant client identifier. All but one of the clients can also be a device implementing the system. A device that has executed a requested function may no longer submit a request in the same step. Consequently, a request is executed by the system when all devices have executed the request. If one or more devices fails, any fault tolerant consensus algorithm can be used.